

The Health of the Networks System

Cooperative Network - Quick Reference Guide

Overview

The Health of the Networks (HoN) provides a set of performance measures used for monitoring the various NOAA observing networks including the Cooperative Data Network (COOP). Performance measures for COOP include data completeness, quality, and validity as well as period of record, missing stations, and receipt timeliness on a monthly basis. A station watchlist is also created identifying temperature data changepoints over a minimum of ten years. Reports are distributed via email to the National Weather Service (NWS) regional offices and are then forwarded to the appropriate Weather Forecast Office (WFO). In addition to links to the reports, the HoN website also provides access to the dynamic graphing and mapping applications. Tools are also provided for generating suspect station lists based upon user-defined temperature and precipitation data value changes as a result of the TempVal and PrecipVal processes.

HoN Cooperative Network Options Website

The Cooperative Network homepage is located at:

<http://www.ncdc.noaa.gov/oa/hofn/coop/coop-home.html>

This page contains links to various station information options as well as report descriptions, QC flag definitions, related publications, and additional websites.

The Cooperative Network options page is located at:

<http://www.ncdc.noaa.gov/oa/hofn/coop/coop-opt.html>

This page provides access to the various types of reporting, graphing, and mapping applications that are offered by station, state, WFO, NWS region, and RCC region.

Report Distribution

HoN reports are distributed in three releases – TD3201 data as Release 1, TD3202 data as Release 2, and TD3200 as the Final Release.

Release 1 data comes from the TD3201 archive and is comprised of ROSA, WXCORDER, and IV-ROCS and is often event-driven. Only the Quality Assurance report is available for this release and is accessible 15-20 days after the data month.

Release 2 data comes from the TD3202 archive and has been quality controlled for internal consistency checks. Quality Assurance and Data Completeness reports are available approximately 60 days after the data month.

Final Release data comes from the TD3200 archive and includes spatial QC and interactive areal edits and serves as the primary COOP data archive at NCDC. All six reports are available approximately 110 days after the data month.

Report notifications are sent via email and include the appropriate links to the reports. All reports are also available from the website. Currently, email notification is limited to NWS regional representatives and a limited number of NWS headquarters personnel. The reports are then forwarded to appropriate WFOs if it is determined that further investigation is necessary.

A more detailed descriptions of the reports and their usage can be found at:

<http://www.ncdc.noaa.gov/oa/hofn/coop/HoN-Action-Ver2.html>













Report Descriptions

Six types of reports are generated from the HoN system – Data Completeness, Quality Assurance, Data Validity, Missing Stations, Station Changepoint List, and the Station Watchlist.

Data Completeness – Completeness percentages are displayed for temperature and precipitation elements. Links are included to the Monthly Data Listing, MI3, the Monthly Snapshot, and Station Graphs. Completeness reports are available by state, NWS region, and RCC region for Release 2 and Final Release data.

HoN - COOP Data Completeness - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Percentage Minimum=80							Percent Complete								
FLAGGED Stations							Temperature							Precipitation	
WFO	ID	Data	Hist	Rprt	Grph	Station Name	ST	Mx	Mn	Ob	Rn	Sn	Dp		
AFX	206158	 MI3				OLD MISSION 3SSW	MI	74	74	74	-99	-99	-99		
AFX	207684	 MI3				SOUTH BOARDMAN 2W	MI	77	80	80	100	100	100		
AFX	208417	 MI3				VANDERBILT 11 ENE	MI	80	74	83	100	100	100		

Quality Assurance – This report displays the number of identified errors, timeshifts, and missing values for temperature and precipitation elements. Links are included to the Monthly Data Listing, MI3, the Monthly Snapshot, and Station Graphs. Quality Assurance reports are available by NWS region for Release 1 and Release 2 data and by state, NWS region, and RCC region for Final Release data.

HoN - COOP QAR - Mozilla Firefox

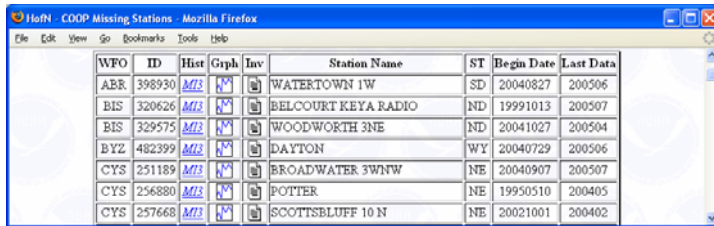
File Edit View Go Bookmarks Tools Help

Error Minimum=8							Identified Errors/Time Shifts/Missing						
FLAGGED Stations							Temperature				Precipitation		
WFO	ID	Data	Hist	Rprt	Grph	Station Name	ST	Mx	Mn	Ob	Rn	Sn	
ABR	392636		MI3			ELM LAKE 4 NW	SD	-/-	-/-	-/-	12/11/0	0/-	
ABR	395561		MI3			MILLER	SD	31/31/0	26/26/0	10/30/0	0/-	-/-	
ABR	396170		MI3			OAH DAM	SD	0/0/12	1/0/12	0/0/5	0/-	-/-	

Data Validity – Data Validity provides a combination of completeness percentages and quality for temperature and precipitation elements. Links are included to the Monthly Data Listing, MI3, the Monthly Snapshot, and Station Graphs. Validity reports are available by state, NWS region, and RCC region for Final Release data only.

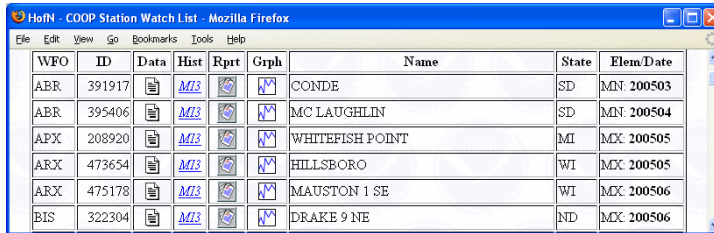
HoN - COOP Data Validity - Mozilla Firefox													
File Edit View Go Bookmarks Tools Help													
Percentage Minimum=80										Percent Valid			
FLAGGED Stations										Temperature		Precipitation	
WFO	ID	Data	Hist	Rprt	Grph	Station Name	ST	Mx	Mn	Ob	Rn	Sn	Dp
ABR	392636					ELM LAKE 4 NW	SD	-99	-99	-99	61	100	100
ABR	393294					GETTYSBURG	SD	100	100	61	100	100	100
ABR	395561					MILLER	SD	-99	16	6	-99	100	100
ABR	396170					OAHE DAM	SD	61	58	61	83	100	100

Missing Stations – Missing station lists are generated for each data month and display the begin date for the station as well as the last data month received. Links are included to MI3, Station Graphs, and Station Inventories. Missing reports are available by state, NWS region, and RCC region for Release 2 and Final Release data.



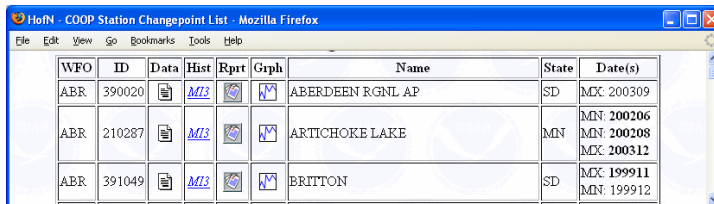
WFO	ID	Hist	Grph	Inv	Station Name	ST	Begin Date	Last Data
ABR	398930	MI3	Grph	Inv	WATERTOWN 1W	SD	20040827	200506
BIS	320626	MI3	Grph	Inv	BELCOURT KEVA RADIO	ND	19991013	200507
BIS	329575	MI3	Grph	Inv	WOODWORTH 3NE	ND	20041027	200504
BYZ	482399	MI3	Grph	Inv	DAYTON	WY	20040729	200506
CYS	251189	MI3	Grph	Inv	BROADWATER 3WNW	NE	20040907	200507
CYS	256880	MI3	Grph	Inv	POTTER	NE	19950510	200405
CYS	257668	MI3	Grph	Inv	SCOTTISBLUFF 10 N	NE	20021001	200402

Station Watchlist – The station watchlist displays stations with a detected changepoint within the past 12 months that do not have a corresponding metadata change within 6 months of the changepoint. Links are included to the Monthly Data Listing, MI3, the Watch Report, and Station Graphs. Watchlists are available by NWS region for Final Release data only.



WFO	ID	Data	Hist	Rprt	Grph	Name	State	Elem Date
ABR	391917	MI3	Hist	Rprt	Grph	CONDE	SD	MN: 200503
ABR	395406	MI3	Hist	Rprt	Grph	MC LAUGHLIN	SD	MN: 200504
APX	208920	MI3	Hist	Rprt	Grph	WHITEFISH POINT	MI	MX: 200505
ARX	473654	MI3	Hist	Rprt	Grph	HILLSBORO	WI	MX: 200505
ARX	475178	MI3	Hist	Rprt	Grph	MAUSTON 1 SE	WI	MX: 200506
BIS	322304	MI3	Hist	Rprt	Grph	DRAKE 9 NE	ND	MX: 200506

Station Changepoint List – Detected changepoints are displayed for max and min temperature elements. Links are included to the Monthly Data Listing, MI3, the Watch Report, and Station Graphs. Changepoint reports are available by NWS region for Final Release data only.

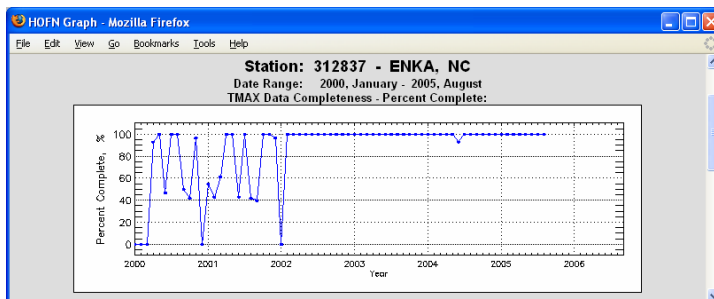


WFO	ID	Data	Hist	Rprt	Grph	Name	State	Date(s)
ABR	390020	MI3	Hist	Rprt	Grph	ABERDEEN RGNL AP	SD	MX: 200309
ABR	210287	MI3	Hist	Rprt	Grph	ARTICHOKE LAKE	MN	MN: 200206 MN: 200208 MX: 200312
ABR	391049	MI3	Hist	Rprt	Grph	BRITTON	SD	MX: 199911 MN: 199912

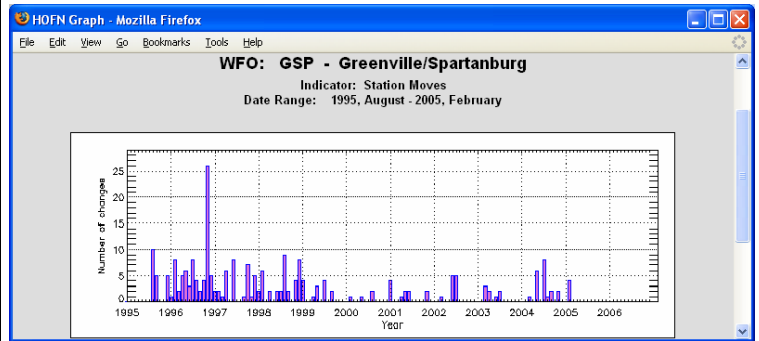
Graphing Options

Graphs are available by station, WFO, state, NWS region, and RCC region. The begin and end dates default to the earliest and latest data available and can be changed by the user.

- Station options include completeness and quality, validity, metadata changes, receipt timeliness, and changepoint detection various elements/qualifiers.

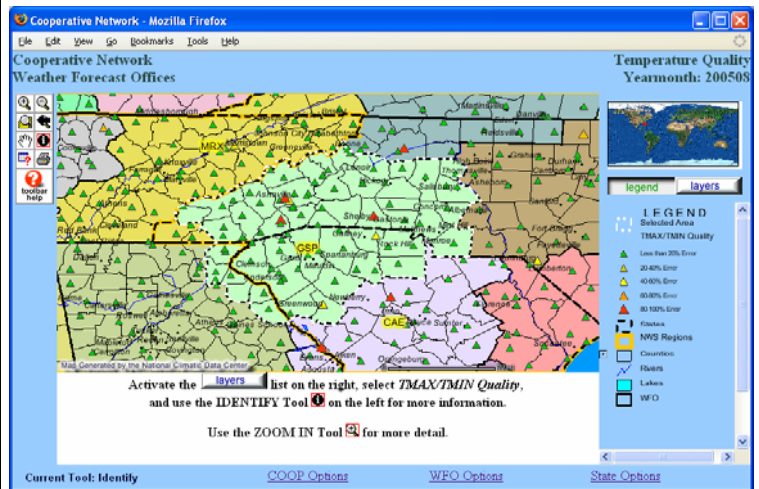


- WFO, state, NWS region, and RCC region options include completeness and quality, validity, practice and equipment changes, receipt timeliness, station moves, stations reporting, and period of record for various elements/qualifiers.

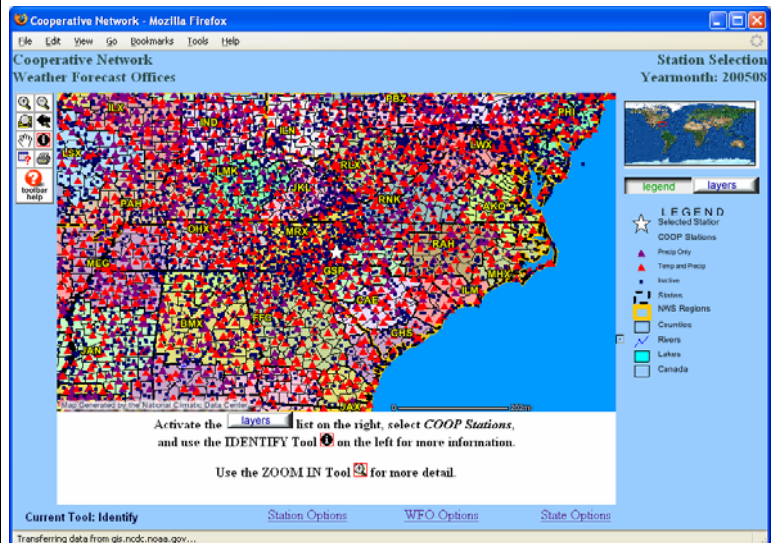


Mapping Options

Maps are available by WFO and state for active stations as well as temperature and precipitation completeness, quality, and validity and missing stations, station practice changes, receipt timeliness, period of record, open/closed/moved, and changepoint/watchlist.



The station options page also includes a station locator map.



Suspect Data Options

Suspect station lists are generated by WFO and user-defined parameters for the difference in observed versus “corrected” values for temperature and precipitation and are available for Final Release data only.

CoopID	Data	Hist	Station Name	State	Latitude	Longitude	Elevation
250035	Data	Hist	AGATE 5N	NE	42.5	-103.8	4748
251578	Data	Hist	CHADRON 3 NE	NE	42.83	-102.95	3463
252147	Data	Hist	DALTON 13W	NE	41.4	-103.23	4606
253015	Data	Hist	FORT ROBINSON	NE	42.67	-103.47	3800

The detailed station data listing includes links to the entire data month listing, the QA flags, and Datzilla.

Day	Element	Org Value	Flag(s)	Upd Value
29	TMIN	69	B J	63
30	TOBS	65	B J	71

Day	Element	Org Value	Flag(s)	Upd Value
7	PRCP	0.96	B	0.00
8	PRCP	0.02	B	0.96
9	PRCP	1.15	B	0.02

The Health of the Networks was developed by NOAA’s NCDC.
Questions and problems can be reported to:
NCDC.Network.Performance@noaa.gov